

ABSTRACT

A probe for an atomic force microscope is adapted such that, as a sample is scanned, it experiences a biasing force urging the probe towards the sample. This improves probe tracking of the sample surface and faster scans are possible. This is achieved by either including a biasing element, which is responsive to an externally applied force, on the probe and/or reducing the quality factor of a supporting beam. This biasing element may, for example, be a magnet or an electrically-conducting element. The quality factor may be reduced by coating the beam with a mechanical-energy dissipating material.